

Digital Conically Scanned L-Band Radar, Phase II

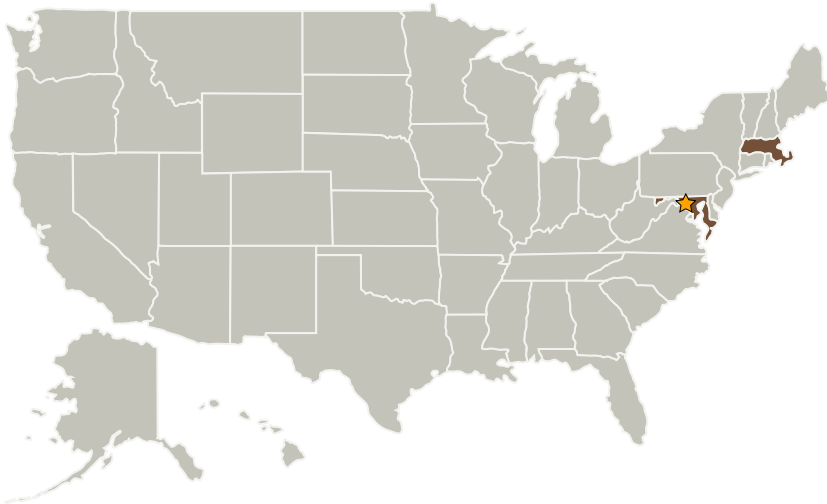
Completed Technology Project (2009 - 2011)



Project Introduction

The proposed effort seeks to develop a digitally steered polarimetric phased array L-Band radar utilizing a novel, high performance architecture leveraging recent advances in radio frequency and digital signal processing components. The driving methodologies are: the minimization of costly and inflexible analog circuitry, adoption of standardized manufacturing processes, and inclusion of reconfigurable software/firmware architectures to facilitate fulfillment of varied sensing requirements. The Phase II effort will build upon the successful Phase I demonstration of the system concept through fabrication of a 2 Dimensional instrument and system validation in a relevant environment.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Goddard Space Flight Center (GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland
Dynamic Sensing Technologies	Supporting Organization	Industry	Amherst, Massachusetts



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations

Maryland

Massachusetts

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
 - └ TX05.2 Radio Frequency
 - └ TX05.2.6 Innovative Antennas